

07312000 Lake Kemp near Mabelle, TX

Red-Lake Texoma Basin
Wichita Subbasin

LOCATION.--Lat 33°45'30", long 99°09'03" referenced to North American Datum of 1927, Baylor County, TX, Hydrologic Unit 11130206, in outlet gate tower near center of dam on Wichita River, 6.2 mi north of Mabelle, 13 mi northeast of Seymour, and 126.7 mi upstream from mouth.

DRAINAGE AREA.--2,086 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct. 1922 to Sept. 2002 (daily mean contents), Oct. 2002 to current year (daily mean elevation).

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Oct. 1964 to Jan. 1968.

BIOCHEMICAL DATA: Oct. 1964 to Oct. 1967.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1972, nonrecording gage at same site and at datum 2.40 ft higher. Satellite telemeter at station.

COOPERATION.--Capacity table No. 4-C was provided by the U.S. Army Corps of Engineers.

REMARKS.--Records good. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically. The lake is formed by a rolled earthfill dam 8,890 ft long. The original dam was completed Aug. 25, 1923, but deliberate impoundment had begun Oct. 1, 1922. Enlargement of the dam was completed in Nov. 1973. The 3,000-foot-wide uncontrolled spillway is located approximately 600 ft to right and slightly upstream from right end of dam. The controlled outlet works near center of dam consist of two hydraulically operated slide gates 5 ft 8-in by 13 ft with a 13-foot-diameter conduit and spillway basin. The dam and lake are owned by the Wichita County Water Improvement District No. 2. Water is used for irrigation in the Wichita River Valley, oil field operation, municipal, and industrial uses. The capacity table is based on a resurvey made in 1973. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam.....	1,183.0
Crest of spillway.....	1,160.0
Top of flood-control pool.....	1,156.0
Top of conservation pool.....	1,147.1
Lowest gated outlet (invert).....	1,090.0

EXTREMES FOR PERIOD OF RECORD.--(period of daily mean contents) Maximum contents, 420,900 acre-ft, June 30, 1941, elevation, 1,152.0 ft, present datum; minimum since first appreciable storage, 26,160 acre-ft, June 30, 1953, elevation, 1,108.0 ft, present datum; (period of daily mean elevation) maximum elevation, 1,146.68 ft, July 15-16, 2007; minimum elevation, 1,135.65 ft, Oct. 9, 2006.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,145.49 ft, Oct. 2; minimum elevation, 1,139.78 ft, Sept. 30.

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ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,145.46	1,144.48	1,144.04	1,144.12	1,143.95	1,143.85	1,143.74	1,144.42	1,144.62	1,143.37	1,141.87	1,140.45
2	1,145.46	1,144.45	1,144.05	1,144.11	1,143.94	1,143.85	1,143.70	1,144.38	1,144.61	1,143.30	1,141.82	1,140.40
3	1,145.43	1,144.42	1,144.02	1,144.10	1,143.93	1,143.86	1,143.66	1,144.34	1,144.61	1,143.25	---	1,140.35
4	1,145.42	1,144.41	1,144.02	1,144.10	1,143.94	1,143.85	1,143.61	1,144.32	1,144.57	1,143.19	---	1,140.30
5	1,145.40	1,144.38	1,144.00	1,144.13	1,143.95	1,143.84	1,143.56	1,144.35	---	1,143.13	---	1,140.25
6	1,145.36	1,144.33	1,143.99	1,144.11	1,143.93	1,143.81	1,143.51	1,144.51	1,144.61	1,143.07	---	1,140.20
7	1,145.34	1,144.31	1,143.99	1,144.10	1,143.92	1,143.80	1,143.46	1,144.63	1,144.59	1,142.99	1,141.43	1,140.14
8	1,145.30	1,144.29	1,143.99	1,144.11	1,143.90	1,143.79	1,143.42	1,144.72	1,144.57	1,142.93	1,141.35	1,140.12
9	1,145.27	1,144.26	1,143.98	1,144.09	1,143.89	1,143.78	1,143.44	1,144.74	1,144.49	1,142.89	1,141.29	---
10	1,145.23	1,144.24	1,144.03	1,144.10	1,143.89	1,143.79	1,143.81	1,144.75	1,144.43	1,142.87	1,141.21	1,140.21
11	1,145.20	1,144.23	1,144.10	1,144.08	1,143.88	1,143.79	1,144.02	1,144.72	1,144.37	1,142.82	1,141.17	1,140.28
12	1,145.17	1,144.21	1,144.16	1,144.07	1,143.88	1,143.80	1,144.27	1,144.71	1,144.30	1,142.77	1,141.12	1,140.31
13	1,145.13	1,144.19	1,144.17	1,144.06	1,143.88	1,143.79	1,144.46	1,144.70	1,144.22	1,142.73	1,141.06	1,140.32
14	1,145.10	1,144.15	1,144.18	1,144.06	1,143.87	1,143.77	1,144.54	1,144.67	1,144.15	1,142.70	1,140.98	1,140.31
15	1,145.06	1,144.10	1,144.21	1,144.07	1,143.82	1,143.76	1,144.55	1,144.68	1,144.09	1,142.66	1,140.94	1,140.30
16	1,145.03	1,144.09	1,144.18	1,144.08	1,143.86	1,143.73	1,144.56	1,144.67	1,144.02	1,142.61	1,140.88	1,140.30
17	1,145.03	1,144.06	1,144.18	1,144.04	1,143.90	1,143.75	1,144.56	1,144.67	1,143.94	1,142.58	1,140.83	1,140.28
18	1,144.97	1,144.05	1,144.18	1,144.03	1,143.90	1,143.92	1,144.55	1,144.65	1,143.88	1,142.54	1,140.81	1,140.26
19	1,144.90	1,144.06	1,144.17	1,144.02	1,143.92	1,144.02	1,144.54	1,144.65	1,143.87	1,142.49	1,140.78	1,140.25
20	1,144.88	1,144.06	1,144.17	1,144.02	1,143.91	1,144.04	1,144.52	1,144.60	1,143.86	1,142.45	1,140.76	1,140.24
21	1,144.84	1,144.04	1,144.17	1,144.00	1,143.90	1,144.03	1,144.53	1,144.57	1,143.83	1,142.40	1,140.74	1,140.22
22	1,144.80	1,144.01	1,144.19	1,144.00	1,143.88	1,144.01	1,144.51	1,144.57	1,143.82	1,142.35	1,140.72	1,140.21
23	1,144.76	1,143.98	1,144.16	1,144.00	1,143.88	1,143.99	1,144.51	1,144.55	1,143.78	1,142.28	1,140.69	1,140.19
24	1,144.71	1,143.98	1,144.14	1,143.97	1,143.88	1,144.01	1,144.54	1,144.55	1,143.72	1,142.24	1,140.66	1,140.18
25	1,144.68	1,144.00	1,144.14	1,143.99	1,143.89	1,144.01	1,144.52	1,144.53	1,143.64	1,142.19	1,140.63	1,140.15
26	1,144.65	1,144.05	1,144.15	1,143.99	1,143.86	1,143.99	1,144.48	1,144.53	1,143.59	1,142.13	1,140.60	1,140.09
27	1,144.62	1,144.05	1,144.14	1,143.98	1,143.86	1,143.99	1,144.45	1,144.52	1,143.52	1,142.08	1,140.57	1,140.03
28	1,144.60	1,144.05	1,144.14	1,144.00	1,143.87	1,143.92	1,144.47	1,144.60	1,143.47	1,142.01	1,140.54	1,139.96
29	1,144.57	1,144.03	1,144.13	1,144.02	1,143.84	1,143.88	1,144.45	1,144.62	1,143.46	1,141.98	1,140.52	1,139.90
30	1,144.55	1,144.03	1,144.13	1,143.97	---	1,143.85	1,144.42	1,144.64	1,143.42	1,141.96	1,140.51	1,139.83
31	1,144.52	---	1,144.13	1,143.99	---	1,143.83	---	1,144.63	---	1,141.91	1,140.48	---
Mean	1,145.01	1,144.17	1,144.11	1,144.05	1,143.89	1,143.87	1,144.18	1,144.59	---	1,142.61	---	---
Max	1,145.46	1,144.48	1,144.21	1,144.13	1,143.95	1,144.04	1,144.56	1,144.75	---	1,143.37	---	---
Min	1,144.52	1,143.98	1,143.98	1,143.97	1,143.82	1,143.73	1,143.42	1,144.32	---	1,141.91	---	---

Calendar Year 2007

Mean	1,143.65
Max	1,146.67
Min	1,140.58

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